



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/656,873
Source: ATP
Date Processed by STIC: 9-16-03

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

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- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER
VERSION 4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/efb/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003



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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/656,873

DATE: 09/16/2003

TIME: 10:47:05

Input Set : A:\00786.381003.SEQLIST.TXT

Output Set: N:\CRF4\09162003\J656873.raw

4 <110> APPLICANT: Fishman, Mark C.
 6 <120> TITLE OF INVENTION: Methods for Diagnosing and Treating
 7 Heart Disease
 9 <130> FILE REFERENCE: 00786/381003
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/656,873
 C--> 11 <141> CURRENT FILING DATE: 2003-09-05
 11 <150> PRIOR APPLICATION NUMBER: US 09/759,508
 12 <151> PRIOR FILING DATE: 2001-01-12
 14 <150> PRIOR APPLICATION NUMBER: US 60/175,787
 15 <151> PRIOR FILING DATE: 2000-01-12
 17 <160> NUMBER OF SEQ ID NOS: 11
 19 <170> SOFTWARE: FastSEQ for Windows Version 4.0

Does Not Comply
Corrected Diskette Needed

ERRORED SEQUENCES

P. 6

1394 <210> SEQ ID NO: 2
 1395 <211> LENGTH: 26926
 1396 <212> TYPE: PRT
 1397 <213> ORGANISM: Homo sapiens
 1399 <400> SEQUENCE: 2
 1400 Met Thr Thr Gln Ala Pro Thr Phe Thr Gln Pro Leu Gln Ser Val Val
 1401 1 5 10 15
 1402 Val Leu Glu Gly Ser Thr Ala Thr Phe Glu Ala His Ile Ser Gly Phe
 1403 20 25 30
 1404 Pro Val Pro Glu Val Ser Trp Phe Arg Asp Gly Gln Val Ile Ser Thr
 1405 35 40 45
 1406 Ser Thr Leu Pro Gly Val Gln Ile Ser Phe Ser Asp Gly Arg Ala Lys
 1407 50 55 60
 1408 Leu Thr Ile Pro Ala Val Thr Lys Ala Asn Ser Gly Arg Tyr Ser Leu
 1409 65 70 75 80
 1410 Lys Ala Thr Asn Gly Ser Gly Gln Ala Thr Ser Thr Ala Glu Leu Leu
 1411 85 90 95
 1412 Val Lys Ala Glu Thr Ala Pro Pro Asn Phe Val Gln Arg Leu Gln Ser
 1413 100 105 110
 1414 Met Thr Val Arg Gln Gly Ser Gln Val Arg Leu Gln Val Arg Val Thr
 1415 115 120 125
 1416 Gly Ile Pro Thr Pro Val Val Lys Phe Tyr Arg Asp Gly Ala Glu Ile
 1417 130 135 140
 1418 Gln Ser Ser Leu Asp Phe Gln Ile Ser Gln Glu Gly Asp Leu Tyr Ser
 1419 145 150 155 160
 1420 Leu Leu Ile Ala Glu Ala Tyr Pro Glu Asp Ser Gly Thr Tyr Ser Val
 1421 165 170 175

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1422 Asn Ala Thr Asn Ser Val Gly Arg Ala Thr Ser Thr Ala Glu Leu Leu
1423           180           185           190
1424 Val Gln Gly Glu Glu Glu Val Pro Ala Lys Lys Thr Lys Thr Ile Val
1425           195           200           205
1426 Ser Thr Ala Gln Ile Ser Glu Ser Arg Gln Thr Arg Ile Glu Lys Lys
1427           210           215           220
1428 Ile Glu Ala His Phe Asp Ala Arg Ser Ile Ala Thr Val Glu Met Val
1429 225           230           235           240
1430 Ile Asp Gly Ala Ala Gly Gln Gln Leu Pro His Lys Thr Pro Pro Arg
1431           245           250           255
1432 Ile Pro Pro Lys Pro Lys Ser Arg Ser Pro Thr Pro Pro Ser Ile Ala
1433           260           265           270
1434 Ala Lys Ala Gln Leu Ala Arg Gln Gln Ser Pro Ser Pro Ile Arg His
1435           275           280           285
1436 Ser Pro Ser Pro Val Arg His Val Arg Ala Pro Thr Pro Ser Pro Val
1437           290           295           300
1438 Arg Ser Val Ser Pro Ala Ala Arg Ile Ser Thr Ser Pro Ile Arg Ser
1439 305           310           315           320
1440 Val Arg Ser Pro Leu Leu Met Arg Lys Thr Gln Ala Ser Thr Val Ala
1441           325           330           335
1442 Thr Gly Pro Glu Val Pro Pro Pro Trp Lys Gln Glu Gly Tyr Val Ala
1443           340           345           350
1444 Ser Ser Ser Glu Ala Glu Met Arg Glu Thr Thr Leu Thr Thr Ser Thr
1445           355           360           365
1446 Gln Ile Arg Thr Glu Glu Arg Trp Glu Gly Arg Tyr Gly Val Gln Glu
1447           370           375           380
1448 Gln Val Thr Ile Ser Gly Ala Ala Gly Ala Ala Ala Ser Val Ser Ala
1449 385           390           395           400
1450 Ser Ala Ser Tyr Ala Ala Glu Ala Val Ala Thr Gly Ala Lys Glu Val
1451           405           410           415
1452 Lys Gln Asp Ala Asp Lys Ser Ala Ala Val Ala Thr Val Val Ala Ala
1453           420           425           430
1454 Val Asp Met Ala Arg Val Arg Glu Pro Val Ile Ser Ala Val Glu Gln
1455           435           440           445
1456 Thr Ala Gln Arg Thr Thr Thr Thr Ala Val His Ile Gln Pro Ala Gln
1457           450           455           460
1458 Glu Gln Val Arg Lys Glu Ala Glu Lys Thr Ala Val Thr Lys Val Val
1459 465           470           475           480
1460 Val Ala Ala Asp Lys Ala Lys Glu Gln Glu Leu Lys Ser Arg Thr Lys
1461           485           490           495
1462 Glu Ile Ile Thr Thr Lys Gln Glu Gln Met His Val Thr His Glu Gln
1463           500           505           510
1464 Ile Arg Lys Glu Thr Glu Lys Thr Phe Val Pro Lys Val Val Ile Ser
1465           515           520           525
1466 Ala Ala Lys Ala Lys Glu Gln Glu Thr Arg Ile Ser Glu Glu Ile Thr
1467           530           535           540
1468 Lys Lys Gln Lys Gln Val Thr Gln Glu Ala Ile Met Lys Glu Thr Arg
1469 545           550           555           560
1470 Lys Thr Val Val Pro Lys Val Ile Val Ala Thr Pro Lys Val Lys Glu

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1471					565				570					575		
1472	Gln	Asp	Leu	Val	Ser	Arg	Gly	Arg	Glu	Gly	Ile	Thr	Thr	Lys	Arg	Glu
1473				580					585					590		
1474	Gln	Val	Gln	Ile	Thr	Gln	Glu	Lys	Met	Arg	Lys	Glu	Ala	Glu	Lys	Thr
1475			595					600					605			
1476	Ala	Leu	Ser	Thr	Ile	Ala	Val	Ala	Thr	Ala	Lys	Ala	Lys	Glu	Gln	Glu
1477		610					615					620				
1478	Thr	Ile	Leu	Arg	Thr	Arg	Glu	Thr	Met	Ala	Thr	Arg	Gln	Glu	Gln	Ile
1479	625					630					635				640	
1480	Gln	Val	Thr	His	Gly	Lys	Val	Asp	Val	Gly	Lys	Lys	Ala	Glu	Ala	Val
1481				645						650					655	
1482	Ala	Thr	Val	Val	Ala	Ala	Val	Asp	Gln	Ala	Arg	Val	Arg	Glu	Pro	Arg
1483			660						665					670		
1484	Glu	Pro	Gly	His	Leu	Glu	Glu	Ser	Tyr	Ala	Gln	Gln	Thr	Thr	Leu	Glu
1485			675					680					685			
1486	Tyr	Gly	Tyr	Lys	Glu	Arg	Ile	Ser	Ala	Ala	Lys	Val	Ala	Glu	Pro	Pro
1487		690					695					700				
1488	Gln	Arg	Pro	Ala	Ser	Glu	Pro	His	Val	Val	Pro	Lys	Ala	Val	Lys	Pro
1489	705					710					715				720	
1490	Arg	Val	Ile	Gln	Ala	Pro	Ser	Glu	Thr	His	Ile	Lys	Thr	Thr	Asp	Gln
1491				725							730				735	
1492	Lys	Gly	Met	His	Ile	Ser	Ser	Gln	Ile	Lys	Lys	Thr	Thr	Asp	Leu	Thr
1493			740						745					750		
1494	Thr	Glu	Arg	Leu	Val	His	Val	Asp	Lys	Arg	Pro	Arg	Thr	Ala	Ser	Pro
1495			755					760					765			
1496	His	Phe	Thr	Val	Ser	Lys	Ile	Ser	Val	Pro	Lys	Thr	Glu	His	Gly	Tyr
1497		770					775					780				
1498	Glu	Ala	Ser	Ile	Ala	Gly	Ser	Ala	Ile	Ala	Thr	Leu	Gln	Lys	Glu	Leu
1499	785					790					795				800	
1500	Ser	Ala	Thr	Ser	Ser	Ala	Gln	Lys	Ile	Thr	Lys	Ser	Val	Lys	Ala	Pro
1501				805						810					815	
1502	Thr	Val	Lys	Pro	Ser	Glu	Thr	Arg	Val	Arg	Ala	Glu	Pro	Thr	Pro	Leu
1503			820						825					830		
1504	Pro	Gln	Phe	Pro	Phe	Ala	Asp	Thr	Pro	Asp	Thr	Tyr	Lys	Ser	Glu	Ala
1505			835					840					845			
1506	Gly	Val	Glu	Val	Lys	Lys	Glu	Val	Gly	Val	Ser	Ile	Thr	Gly	Thr	Thr
1507		850					855					860				
1508	Val	Arg	Glu	Glu	Arg	Phe	Glu	Val	Leu	His	Gly	Arg	Glu	Ala	Lys	Val
1509	865					870					875				880	
1510	Thr	Glu	Thr	Ala	Arg	Val	Pro	Ala	Pro	Val	Glu	Ile	Pro	Val	Thr	Pro
1511				885							890				895	
1512	Pro	Thr	Leu	Val	Ser	Gly	Leu	Lys	Asn	Val	Thr	Val	Ile	Glu	Gly	Glu
1513			900						905					910		
1514	Ser	Val	Thr	Leu	Glu	Cys	His	Ile	Ser	Gly	Tyr	Pro	Ser	Pro	Thr	Val
1515			915					920					925			
1516	Thr	Trp	Tyr	Arg	Glu	Asp	Tyr	Gln	Ile	Glu	Ser	Ser	Ile	Asp	Phe	Gln
1517		930					935					940				
1518	Ile	Thr	Phe	Gln	Ser	Gly	Ile	Ala	Arg	Leu	Met	Ile	Arg	Glu	Ala	Phe
1519	945					950					955				960	

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1520 Ala Glu Asp Ser Gly Arg Phe Thr Cys Ser Ala Val Asn Glu Ala Gly
1521          965          970          975
1522 Thr Val Ser Thr Ser Cys Tyr Leu Ala Val Gln Val Ser Glu Glu Phe
1523          980          985          990
1524 Glu Lys Glu Thr Thr Ala Val Thr Glu Lys Phe Thr Thr Glu Glu Lys
1525          995          1000          1005
1526 Arg Phe Val Glu Ser Arg Asp Val Val Met Thr Asp Thr Ser Leu Thr
1527          1010          1015          1020
1528 Glu Glu Gln Ala Gly Pro Gly Glu Pro Ala Ala Pro Tyr Phe Ile Thr
1529 1025          1030          1035          1040
1530 Lys Pro Val Val Gln Lys Leu Val Glu Gly Gly Ser Val Val Phe Gly
1531          1045          1050          1055
1532 Cys Gln Val Gly Gly Asn Pro Lys Pro His Val Tyr Trp Lys Lys Ser
1533          1060          1065          1070
1534 Gly Val Pro Leu Thr Thr Gly Tyr Arg Tyr Lys Val Ser Tyr Asn Lys
1535          1075          1080          1085
1536 Gln Thr Gly Glu Cys Lys Leu Val Ile Ser Met Thr Phe Ala Asp Asp
1537          1090          1095          1100
1538 Ala Gly Glu Tyr Thr Ile Val Val Arg Asn Lys His Gly Glu Thr Ser
1539 1105          1110          1115          1120
1540 Ala Ser Ala Ser Leu Leu Glu Glu Ala Asp Tyr Glu Leu Leu Met Lys
1541          1125          1130          1135
1542 Ser Gln Gln Glu Met Leu Tyr Gln Thr Gln Val Thr Ala Phe Val Gln
1543          1140          1145          1150
1544 Glu Pro Glu Val Gly Glu Thr Ala Pro Gly Phe Val Tyr Ser Glu Tyr
1545          1155          1160          1165
1546 Glu Lys Glu Tyr Glu Lys Glu Gln Ala Leu Ile Arg Lys Lys Met Ala
1547          1170          1175          1180
1548 Lys Asp Thr Val Val Val Arg Thr Tyr Val Glu Asp Gln Glu Phe His
1549 1185          1190          1195          1200
1550 Ile Ser Ser Phe Glu Glu Arg Leu Ile Lys Glu Ile Glu Tyr Arg Ile
1551          1205          1210          1215
1552 Ile Lys Thr Thr Leu Glu Glu Leu Leu Glu Glu Asp Gly Glu Glu Lys
1553          1220          1225          1230
1554 Met Ala Val Asp Ile Ser Glu Ser Glu Ala Val Glu Ser Gly Phe Asp
1555          1235          1240          1245
1556 Leu Arg Ile Lys Asn Tyr Arg Ile Leu Glu Gly Met Gly Val Thr Phe
1557          1250          1255          1260
1558 His Cys Lys Met Ser Gly Tyr Pro Leu Pro Lys Ile Ala Trp Tyr Lys
1559 1265          1270          1275          1280
1560 Asp Gly Lys Arg Ile Lys His Gly Glu Arg Tyr Gln Met Asp Phe Leu
1561          1285          1290          1295
1562 Gln Asp Gly Arg Ala Ser Leu Arg Ile Pro Val Val Leu Pro Glu Asp
1563          1300          1305          1310
1564 Glu Gly Ile Tyr Thr Ala Phe Ala Ser Asn Ile Lys Gly Asn Ala Ile
1565          1315          1320          1325
1566 Cys Ser Gly Lys Leu Tyr Val Glu Pro Ala Ala Pro Leu Gly Ala Pro
1567          1330          1335          1340
1568 Thr Tyr Ile Pro Thr Leu Glu Pro Val Ser Arg Ile Arg Ser Leu Ser

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1569 1345          1350          1355          1360
1570 Pro Arg Ser Val Ser Arg Ser Pro Ile Arg Met Ser Pro Ala Arg Met
1571          1365          1370          1375
1572 Ser Pro Ala Arg Met Ser Pro Ala Arg Met Ser Pro Ala Arg Met Ser
1573          1380          1385          1390
1574 Pro Gly Arg Arg Leu Glu Glu Thr Asp Glu Ser Gln Leu Glu Arg Leu
1575          1395          1400          1405
1576 Tyr Lys Pro Val Phe Val Leu Lys Pro Val Ser Phe Lys Cys Leu Glu
1577          1410          1415          1420
1578 Gly Gln Thr Ala Arg Phe Asp Leu Lys Val Val Gly Arg Pro Met Pro
1579 1425          1430          1435          1440
1580 Glu Thr Phe Trp Phe His Asp Gly Gln Gln Ile Val Asn Asp Tyr Thr
1581          1445          1450          1455
1582 His Lys Val Val Ile Lys Glu Asp Gly Thr Gln Ser Leu Ile Ile Val
1583          1460          1465          1470
1584 Pro Ala Thr Pro Ser Asp Ser Gly Glu Trp Thr Val Val Ala Gln Asn
1585          1475          1480          1485
1586 Arg Ala Gly Arg Ser Ser Ile Ser Val Ile Leu Thr Val Glu Ala Val
1587          1490          1495          1500
1588 Glu His Gln Val Lys Pro Met Phe Val Glu Lys Leu Lys Asn Val Asn
1589 1505          1510          1515          1520
1590 Ile Lys Glu Gly Ser Arg Leu Glu Met Lys Val Arg Ala Thr Gly Asn
1591          1525          1530          1535
1592 Pro Asn Pro Asp Ile Val Trp Leu Lys Asn Ser Asp Ile Ile Val Pro
1593          1540          1545          1550
1594 His Lys Tyr Pro Lys Ile Arg Ile Glu Gly Thr Lys Gly Glu Ala Ala
1595          1555          1560          1565
1596 Leu Lys Ile Asp Ser Thr Val Ser Gln Asp Ser Ala Trp Tyr Thr Ala
1597          1570          1575          1580
1598 Thr Ala Ile Asn Lys Ala Gly Arg Asp Thr Thr Arg Cys Lys Val Asn
1599 1585          1590          1595          1600
1600 Val Glu Val Glu Phe Ala Glu Pro Glu Pro Glu Arg Lys Leu Ile Ile
1601          1605          1610          1615
1602 Pro Arg Gly Thr Tyr Arg Ala Lys Glu Ile Ala Ala Pro Glu Leu Glu
1603          1620          1625          1630
1604 Pro Leu His Leu Arg Tyr Gly Gln Glu Trp Glu Glu Gly Asp Leu
1605          1635          1640          1645
1606 Tyr Asp Lys Glu Lys Gln Gln Lys Pro Phe Phe Lys Lys Lys Leu Thr
1607          1650          1655          1660
1608 Ser Leu Arg Leu Lys Arg Phe Gly Pro Ala His Phe Glu Cys Arg Leu
1609 1665          1670          1675          1680
1610 Thr Pro Ile Ser Asp Pro Thr Met Val Val Glu Trp Leu His Asp Gly
1611          1685          1690          1695
1612 Lys Pro Leu Glu Ala Ala Asn Arg Leu Arg Met Ile Asn Glu Phe Gly
1613          1700          1705          1710
1614 Tyr Cys Ser Leu Asp Tyr Gly Val Ala Tyr Ser Arg Asp Ser Gly Ile
1615          1715          1720          1725
1616 Ile Thr Cys Arg Ala Thr Asn Lys Tyr Gly Thr Asp His Thr Ser Ala
1617          1730          1735          1740

```

Val Asn Ile Ala Gly Ile Gly Glu Pro Gly Glu Val Thr Asp Val Ile
 10005 10010 10015
 Glu Met Lys Asp Arg Leu Val Ser Pro Asp Leu Gln Leu Asp Ala Ser
 10020 10025 10030

This is a sample of global error.
 Please leave one space between the last
 amino-acid number and the next
 amino-acid.

eg:

Gly Ile
 10005 ||